

## **AB VOLVO PENTA**

EXECUTIVE ORDER U-R-014-0074 New Off-Road

New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2004	4VPXL12.1ACB	12.1	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Direct Dies Electr	el Injection, Turbocharg onic Control Module, Sn	er, Charge Air Cooler, noke Puff Limiter	Generator Set			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED	EMISSION	EXHAUST (g/kW-hr)				OPACITY (%)				
POWER CLASS	STANDARD CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
225 ≤ kW < 450	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	N/A	N/A	N/A
		CERT	-	-	5.8	0.7	0.15	-	-	-

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 19 day of February 2004

Allen Lyons, Chief

Mobile Source Operations Division

## **Engine Model Summary Form**

AB VOLVO PENTA Manufacturer:

Engine category: Nonroad Cl
EPA Engine Family: 4VPXL12.1ACB Engine category:

Mfr Family Name: TAD124XGE

New Submission Process Code:

4.) 5.4.

Attachment 1 of 1

4-R-014-0074

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9.Emission Control Device Per SAE J193	PL DAT, TC, C	one office a constant field mand. A constant type of tages			Man a series and a	of the final handle and the control of the control of the final handle and the control of the final handle and the control of
8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J193	179 @ 1869 SPL DDI, TK, CAC, 6	217 @ 1757	158 @1704	180 @ 1538	139 @ 1503	156 @ 1350
7.Fuel Rate: mm/stroke@peak torque	355 @ 1869	359 @ 1757	320 @ 1704	300 @1538	277 @ 1503	259 @ 1350
6.Torque @ RPM (SEA Gross)	1869 @ 1500	1757 @ 1800	1704 @ 1500	1538 @ 1800	1503 @ 1500	1350 @ 1800
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	179 @ 534	217 @ 602	158 @ 486	180 @ 527	139 @ 429	156 @ 462
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	355 @ 534	359 @ 602	320 @ 486	300 @ 527	277 @ 429	259 @ 462
3.BHP@RPM 2.Engine Model (км) (SAE Gross)	534 @ 1500	TAD1242GE YY 602 @ 1800	486 @ 1500	527 @ 1800	TAD1240GE 320 429 @ 1500	462 @ 1800
2.Engine Model	TAD1242GE	TAD1242GE	TAD1241GE	TAD1241GE	TAD1240GE	TAD1240GE
I.Engine Code		8	6	10	5	9